

Customer No.: 31561
Application No.: 10/604,744
Docket No.: 9720-US-PA

AMENDMENTS

In The Claims

1. (original) A printed circuit board, at least comprising:
a plurality of patterned circuit layers;
an insulation layer between the patterned circuit layers for isolating the patterned circuit layers from each other, wherein the insulation layer and the patterned circuit layers together form a laminated layer; and
at least one side circuit on a sidewall of the laminated layer for electrically interconnecting at least any two of the patterned circuit layers.
2. (original) The printed circuit board of claim 1, wherein the at least one side circuit has a shape structure so that impedances of the sidewall circuits and the patterned circuit layers are matched with each other.
3. (original) The printed circuit board of claim 1, wherein the at least one side circuit includes a uniform width.
4. (original) The printed circuit board of claim 1, wherein the at least one side circuit includes a varying width.
5. (original) The printed circuit board of claim 1 wherein the at least one side circuit includes a trapezoidal shape.
6. (original) The printed circuit board of claim 1, wherein the least one side circuit includes a bending circuit on the sidewall.

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7. (withdrawn) A printed circuit board, at least comprising:
- a plurality of patterned circuit layers;
 - an insulation layer between the patterned circuit layers for isolating the patterned circuit layers from each other, wherein the insulation layer and the patterned circuit layers together form a laminated layer, wherein the laminated layer includes a cavity; and
 - at least one side circuit implemented on an interior sidewall of the cavity for electrically interconnecting at least any two of the patterned circuit layers.
8. (withdrawn) The printed circuit board of claim 7, wherein the at least one side circuit has a shape structure so that impedances of the sidewall circuits and the patterned circuit layers are matched with each other.
9. (withdrawn) The printed circuit board of claim 7, wherein the at least one side circuit includes a uniform width.
10. (withdrawn) The printed circuit board of claim 7, wherein the at least one side circuit includes a varying width.
11. (withdrawn) The printed circuit board of claim 7, wherein the at least one side circuit includes a trapezoidal shape.
12. (withdrawn) The printed circuit board of claim 7, wherein the least one side circuit includes a bending circuit on the sidewall.
13. (withdrawn) A printed circuit board, at least comprising:
- a plurality of patterned circuit layers;

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an insulation layer between the patterned circuit layers for isolating the patterned circuit layers from each other, wherein the insulation layer and the patterned circuit layers together form a laminated layer, wherein the laminated layer includes an opening; and

at least one side circuit implemented on an interior sidewall of the opening for electrically interconnecting at least any two of the patterned circuit layers.

14. (withdrawn) The printed circuit board of claim 13, wherein the opening comprises a through hole in the laminated layer.

15. (withdrawn) The printed circuit board of claim 13, wherein the at least one side circuit has a shape structure so that impedances of the sidewall circuits and the patterned circuit layers are matched each other.

16. (withdrawn) The printed circuit board of claim 13, wherein the at least one side circuit include a uniform width.

17. (withdrawn) The printed circuit board of claim 13, wherein the at least one side circuit includes a varying width.

18. (withdrawn) The printed circuit board of claim 13, wherein the at least one side circuit includes a trapezoidal shape.

19. (withdrawn) The printed circuit board of claim 13, wherein the least one side circuit includes a bending circuit on the sidewall.

20. (withdrawn) A printed circuit board, at least comprising:
a plurality of patterned circuit layers;

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an insulation layer between the patterned circuit layers for isolating the patterned circuit layers from each other, wherein the insulation layer and the patterned circuit layers together form a laminated layer, wherein the laminated layer has a sidewall including at least two selected from the group consisting of an edge sidewall of the laminated layer, an interior sidewall of a cavity of the laminated layer, and an interior sidewall of an opening of the laminated layer; and

at least one side circuit implemented on the sidewall electrically interconnecting at least two of the patterned circuit layers.

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